

WHAT IS CLAIMED IS:

1. A Wireless Wide Area Network (W²AN), comprising:
 - i. a plurality of Network Objects; and
 - ii. an Aggregating Disseminating Communication Component (ADCC) for each said Network Object, for processing data in each network object, and enabling communication of relevant data between said plurality of network objects.
2. The system of claim 1, wherein said Network Objects are objects within domains selected from the group consisting of automobile, marine and aviation domains.
3. The system of claim 2, wherein said network objects integrate Telematics related data from a plurality of network objects, thereby enabling formation of a Telematics W²AN (TW²AN).
4. The system of claim 3, wherein said TW²AN enables transferal of information types selected from the group consisting of Traffic status maps (TSM); Service Information Messages (SIM); and Instance Information Messages (IIM).
5. The system of claim 1, wherein said Network Object is selected from the group consisting of stationary objects and mobile objects.
6. The system of claim 5, wherein said stationary objects further comprise:
 - i- an Underlying Computer System (UCS); and
 - ii- a network wireless communication unit

7. The system of claim 5, wherein said stationary objects are selected from the group of Network Objects consisting of Businesses, hotels, parking garages, restaurants, tourist attractions, maintenance centers, control towers, weather stations, and light houses.
8. The system of claim 5, wherein said mobile objects further comprise:
 - i) a Telematics system;
 - ii) a network wireless communication unit; and
 - iii) a geographical positioning system unit.
9. The system of claim 5, wherein said mobile Network Object systems are selected from the group of Network Objects consisting of automobiles, surface vehicles, ships, marine vehicles, airplanes, air vehicles and satellites.
10. The system of claim 1, wherein said ADCC further comprises:
 - a) a Main Control and Algorithm Unit (MCAU), for controlling the ADCC;
 - b) database tables, for storing information used by said MCAU; and
 - c) an interface to said network communications component.
11. The system of claim 10, wherein said ADCC, when in a stationary object, further comprises:
 - d) an interface to said object's underlying computerized system (UCS).
12. The system of claim 10, wherein said ADCC, when in a dynamic object, further comprises:

- e) an interface to said geographical positioning system unit;
- f) an interface to Telematics System (TS) of said object.

13. The system of claim 10, wherein said MCAU further comprises:

- a. means for configuring said Network Object and said ADCC parameters from said TW²AN;
- b. means for controlling said Network Object and said ADCC parameters from said TW²AN and
- c. means for central control and synchronization between different components of said ADCC.

14. The system of claim 13, further comprising means selected from the group consisting of:

- d. a Billing means for ensuring that said Network Objects participate in said TW²AN in accordance to object authorization;
- e. a handling Traffic Status Map (TSM) means for enabling said ADCC to construct and maintain said TSM;
- f. a handling Service Information Message (SIM) means and a handling Instant information messages (IIM) means for constructing and maintaining messages;
- g. a Communication protocol for enabling communication between a plurality of said Network Objects;
- h. a Merging traffic status maps means, for enabling handling of received TSM from said remote ADCC and merging said received TSM with internal TSM; and

- i. a Maintaining information tables means, for enabling handling of received SIM and IIM, from said remote ADCC and merging said received SIM and IIM with internal SIM and IIM respectively

15. The system of claim 10, wherein said database tables means further comprises tables selected from the group consisting of:

- I. an object specifications table, for storing information for publishing to said TW²AN;
- II. a traffic map table, for storing current TSM of said object;
- III. an information table, for storing SIM and IIM from said TW²AN; and
- IV. a configuration table, for configuring parameters of operation of said ADCC.

16. The system of claim 4, wherein said SIM provides data to said TW²AN from mobile and stationary network objects, said SIM further comprising:

- I) identification of a sending network object;
- II) message time to live and space to live data;
- III) message priority data;
- IV) message version data;
- V) message information type; and
- VI) message information data.

17. The system of claim 16, wherein if said data providing network object is stationary, said SIM further compromises location data of sending network object.

18. The system of claim 16, wherein if said network object is mobile and said network object requires a reply from a second network object, said SIM further compromises location data, velocity data and direction data of sending network object.
19. The system of claim 4, wherein said IIM provides means for network objects to send short-lived (instant) messages to other network objects, said IIM further comprising:
- I- identification of a sending network object;
 - II- message time to live and space to live data;
 - III- message priority data;
 - IV- message version data;
 - V- message destination identification address;
 - VI- message information type; and
 - VII- message information data.
20. The system of claim 19, wherein if said data providing network object is stationary, said IIM further compromises location data of sending network object.
21. The system of claim 19, wherein if said network object is mobile and said network object requires a reply from a second network object, said IIM further compromises location data, velocity data and direction data of sending network object.

22. The system of claim 4, wherein said IIM further comprises messages selected from the group consisting of:
 - (i) broadcast IIM (BIIM), for disseminating said IIM to a plurality of said network objects; and
 - (ii) narrowcast IIM (NIIM), for disseminating said IIM to a specific said network object.
23. The system of claim 4, wherein said TSM provides means for network objects to aggregate, publish and receive traffic maps, said TSM further comprises:
 - I) identification of a sending network object;
 - II) message time to live and space to live data
 - III) message priority data; and
 - IV) message information data of said object, said message information data being a collection of Traffic Status Records (TSR).
24. The system of claim 23, wherein each said TSR has a time and location stamp of a reading, and at least one parameter selected from the group of relevant Telematics parameters consisting of Velocity, Direction of movement, Lights status, Wiper status, Tracking system status, wind speed, cloud density, temperature, barometric pressure, and Engine RPM.
25. The system of claim 14, wherein said communication protocol further comprises:
 - a- network technologies for connecting said Network Objects;

- b- a plurality of message types for defining messages for transfer between said Network Objects, said types selected from the group consisting of TSM, SIM and IIM;
- c- tables in each said Network Object, for storing and managing data messages;
- d- means for adaptive communication range according to density of said network objects .

26. A method for aggregating and disseminating data between a plurality of remote Network Objects in order to form a Wireless WAN (W^2AN), comprising the steps of:
- i. compiling network object internal information, by an Aggregating Disseminating Communication Component (ADCC) within each of the network objects;
 - ii. Communicating said network object internal information between at least two network objects;
 - iii. merging received said first network object internal information with internal information of said second network object as said second network object's new internal information;
 - iv. transferring relevant information to Underlying Computer System (UCS) of said second network object.
27. The method of claim 26, wherein said network objects operate in a domain selected from the group consisting of automobile, marine and aviation domains.

28. The method of claim 27, wherein said domains enable the wireless communication of Telematics related data, thereby forming a Telematics Wireless Wide Area Network (TW²AN).
29. The method of claim 28, wherein said TW²AN enables communication of various types of data between the remote Network Objects, selected from the group consisting of Traffic Status maps (TSM), Service Information (SIM), and Instant Information Messages (IIM).
30. The method of claim 29, wherein said IIM further comprises messages selected from the group consisting of:
- i- broadcast IIM (BIIM); and
 - ii- narrowcast IIM (NIIM).
31. The method of claim 26, further comprising the step of swapping roles of said first network object and said second network object, such that said first network object becomes an information receiver, and such that said second network object becomes an information transmitter.
32. The method of claim 26, further comprising transmitting a request to at least a third network object, for sending said new internal information to said at least a third network object.
33. The method of claim 26, wherein said compiling of network object internal information further comprises the compiling of data types selected from the

group consisting of Traffic Status Maps (TSM), Service Information Messages (SIM), and Instant Information Messages (IIM).

34. The method of claim 33, wherein said TSM is complied according to the steps of:

- a. reading and storing vehicle internal parameters periodically to said ADCC;
- b. reading and storing said vehicle internal parameters to said ADCC when one of said parameters change outside a predefined threshold; and
- c. ignoring information unrelated to traffic based data.

35. The method of claim 26, wherein said communication of said network object's internal information, comprises the steps of:

- i. transmitting a request to at least one second network object, for sending said internal information, by said first network object;
- ii. sending an acknowledgment of said request to said first network object, by said second network object, that said second network object is prepared to receive said internal information from said first network object;
- iii. transferring said internal information to said second network object, by said first network object; and
- iv. receiving said first network object internal information, by said second network object.

36. The method of claim 26, wherein said communication further comprises simultaneous communication of network object internal information between at least two said network objects.

37. The method of claim 26, wherein said communication only occurs when there is at least one additional network object within said first object's communication range.

38. The method of claim 35, wherein said transmitting a request to a second said network object to send said internal information, is executed in a way selected from the group consisting of periodically transmitting; immediately transmitting when new information is received by said first network object; and immediately transmitting when some query is met.

39. The method of claim 35, wherein said receive process further comprises the steps of:

a - listening to a communication line for a request to send information from a first network object;

b - when receiving said request, checking if proposed information is new information;

c - if said proposed information is new, receiving said new information;

d - if said proposed information is not new, declining said new information;

and

e - after receipt of said new information, said second object sends information to a third object.

40. The method of claim 26, wherein said merging of received said network object internal information further comprises the merging of data types selected from the group consisting of current Traffic Status Maps (TSM), historic Traffic Status

Maps (TSM), Service Information Messages (SIM), and Instant Information Messages (IIM).

41. The method of claim 40, wherein said current TSM is merged according to the steps of:

- A- building a new TSM, by merging a received Traffic Status Record (TSR) with an existing TSR in an existing TSM;
- B- keeping said TSR that is most relevant in said new TSM, according to a time data criterion; and
- C- if there are memory space limitations, deleting least relevant TSR, according to criteria selected from the group consisting of time data and space data.

42. The method of claim 26, wherein said transferring relevant information to said Underlying Computer System (UCS) further comprises the transfer of data types selected from the group consisting of Traffic Status Maps (TSM), Service Information Messages (SIM), and Instant Information Messages (IIM).

43. The method of claim 42, wherein said TSM is transferred to said Underline Computerized System (UCS) of a network object, according to the steps of:

- A: converting a new collection of discrete TSR to a continuation map, said map including road information and direction of movement data; and
- B: transferring said continuation map to said object's UCS, for presentation to said object's user.

44. A method for forming a Wireless Wide Area Network (W²AN) without the need of external network infrastructure, comprising the steps of:

- i. setting up a plurality of Aggregating Disseminating Communication Component (ADCC) components, each said ADCC component located in each of at least one Network Object;
- ii. configuring said ADCC components to enable communication of Network Object data for each said Network Object; and
- iii. communicating said Network Object data between at least two said Network Objects, by means of exchanging information between two ADCC components, via wireless telecommunications technology.

45. The method of claim 44, wherein said Network Object data is selected from the group consisting of surface related data, marine data and aeronautical data.